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Arto Isokoski

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YOUNG & THOMPSON
745 SOUTH 23RD STREET
2ND FLOOR
ARLINGTON, VA 22202

EXAMINER

TIMORY, KABIR A

ART UNIT

PAPER NUMBER

2609

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/536,965	Applicant(s) ISOKOSKI ET AL.	
	Examiner Kabir A. Timory	Art Unit 2609	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 May 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 37-81 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 37-81 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 5/31/2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>8/31/2005 & 5/31/2005</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: spelling of **"programme"** should be changed to **"program"** anywhere the word appears in the specification.

Appropriate correction is required.

2. The abstract of the disclosure is objected to because of spelling of **"programme"** should be changed to **"program"** anywhere the word appears in the abstract.

Correction is required. See MPEP § 608.01(b).

Claim Objections

3. Claims 37- 81 are objected to because of the following informalities:

- (1) In all above claims, spelling of **"programme"** should be changed to **"program"** anywhere the word appears in all claims. Appropriate correction is required.

- (2) In claim 52, line 9, **"server"** should be replaced with **"the server"**.

- (3) In claim 57, line 5, spelling of **"broadcastipg"** should be changed to **"broadcasting"**.

- (4) In claim 67, line 6, **"server"** should be replaced with **"the server"**.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 51, 66, 69, and 70-81 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 51, line 6, claim 66, lines 5 and 8, claim 69, line 5, and claim 70, lines 13 and 15, recite the limitation "**in advance**". There is no clear definition for limitation in the claims. It is unclear if this limitation of the claim intended to refer "receiving broadcasting data prior to the transmission by the mobile unit" or "prioritizing the transmission of the broadcasting data to the mobile stations". However, the term "**in advance**" differs from "receiving broadcasting data in advance or prioritizing the transmission". However, the examiner suggests clarifying and giving a clear and explicit definition of the term "**in advance**".

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States

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only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 37, 38, 39, 40, 41, 42, 43, 49, 51, 52, 53, 54, 55, 56, 57, 58, 64, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, and 81 are rejected under 35 U.S.C. 102(e) as being anticipated by Noreen et al. (US Pub. Number 2002/0183059).

(1) Regarding claim 37:

As shown in figure 1, Noreen discloses a method for broadcasting a program the method comprising:

- broadcasting from a broadcasting system (figure 1, 102) a program over a broadcasting path of the broadcasting system (figure 1);
- transferring from a server broadcast program-associated data to a cellular radio network (column 69, lines 39-44);
- transmitting from a base station (the ground station is interpreted as base station) (figure 1, 108) of the cellular radio network (column 0083, lines 9-10) the broadcast program-associated data (column 0045, lines 6-9) at a specific frequency defined for the cellular radio network (carrier frequency is interpreted as specific frequency) (column 049, lines 5-8) in such a manner that the transmission of the broadcast program-associated data is synchronized with the broadcasting of the program (column 0053, lines 20-33);
- and receiving with a subscriber terminal (the mobile unit is interpreted as subscriber terminal)(figure 11, 320, column 0046, lines 1-5) of the cellular radio network the program and the broadcast program-associated data in such a manner that a

program receiver of the subscriber terminal (figure 1, 324) receives from the broadcasting path of the broadcasting system the program (figure 1, column 0046, lines 1-6) and a cellular radio network transceiver of the subscriber terminal (figure 15, 410) receives the broadcast program-associated data at a specific frequency (carrier frequency is interpreted as specific frequency) (column 0049, lines 5-8).

(2) Regarding claim 38:

A method as claimed in claim 37, wherein the method also comprises:

- transferring the broadcast program-associated data from the broadcasting system to the server (column 69, lines 39-44).

(3) Regarding claim 39:

A method as claimed in claim 37, wherein:

- the broadcast program-associated data comprises at least one of the following: text, sound, stationary picture, moving picture (the moving picture is interpreted as video) (column 0045, line 3-9 and column 0079, lines 8-12).

(4) Regarding claim 40:

A method as claimed in claim 37, wherein:

- the broadcast program-associated data comprises information defining the broadcasting time of the program (column 0049, lines 4-11).

(5) Regarding claim 41:

A method as claimed in claim 40, wherein the method also comprises:

- starting the presentation of the program in the subscriber terminal on the basis of the information defining the broadcasting time (column 0049, lines 4-15).

(6) Regarding claim 42:

A method as claimed in claim 40, wherein:

- the method also comprises: storing the program in the subscriber terminal on the basis of the information defining the broadcasting time (column 0084, lines 26-34).

(7) Regarding claim 43:

A method as claimed in claim 37, wherein the method also comprises:

- maintaining in the server a list of subscriber terminals that receive the broadcast program-associated data (subscriber database is interpreted as a server to maintain a list of subscriber terminals that receive the broadcast program-associated data) (figure 3, 205, column 0052, lines 44-5.

mobile terminal.

(8) Regarding claim 49:

A method as claimed in claim 37, wherein:

- the program comprises a radio program (figure 1, 102, 102N),
- the broadcast program-associated data comprises data associated with a radio program (figure 11, 308),
- the broadcasting system comprises a radio broadcasting system (figure 1, 102), the program receiver comprises a radio receiver (figure 15, 324),
- and the broadcasting system broadcasting path comprises a specific frequency defined for the radio broadcasting system (column 0052, line 10-11).

(9) Regarding claim 51:

A method as claimed in claim 37, wherein:

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- the transmission of the broadcast program-associated data (data such as text, audio, video are interpreted to be program associated data) (column 0045, line 3-9 and column 0079, lines 8-12) is synchronized with the broadcasting of the program in such a manner that the broadcast program-associated data is transmitted in advance to the subscriber terminal (column 004, lines 6-9) and the broadcast program-associated data transmitted in advance to the subscriber terminal is used after a permission to do so has been obtained (the clock synchronization between the mobile unit and the network is interpreted to be the term "in advance")(column 0053, line 20-25).

(10) Regarding claim 52:

System for broadcasting a program, the system comprising:

- a broadcasting system for broadcasting a program over a broadcasting path of the broadcasting system (figure 1, column 0046, lines 1-6);
- a subscriber terminal of a cellular radio network that comprises a program receiver for receiving a program from the broadcasting path of the broadcasting system (figure 11, 324, column 0047, lines 9-11);
- a server (broadcaster identification database is interpreted a server) (figure 3, 200) for processing broadcast program-associated data, which the server is configured to process synchronization information that defines the synchronization of the transmission of the broadcast program-associated data with the broadcasting of the program (column 0053, line 20-32); and

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- a cellular radio network (figure 8, 220) configured to receive from the server (figure 3, 200) the broadcast program-associated data and synchronization information and which cellular radio network comprises a base station (figure 8, 224, column 0060, lines 4-7) configured to transmit at a specific frequency defined for the cellular radio network (carrier frequency is interpreted as specific frequency) (column 0060, lines 12-15) the broadcast program-associated data in such a manner that the transmission of the broadcast program-associated data is synchronized with the broadcasting of the program according to the synchronization information (column 0053, line 1-32); and
- the subscriber terminal of the cellular radio network also comprises a cellular radio network transceiver (figure 15 (410), column 0074, lines 5-8) for receiving the broadcast program-associated data at a specific frequency (the carrier frequency is interpreted as specific frequency) (column 0060, lines 12-15) defined for the cellular radio network.

(11) Regarding claim 53:

A system as claimed in claim 52, wherein:

- the broadcasting system is configured to transfer the broadcast program-associated data to the server, and the server is configured to receive the broadcast program-associated data from the broadcasting system (column 69, lines 39-44).

(12) Regarding claim 54:

A system as claimed in claim 52, wherein the broadcast program-associated data comprises:

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- at least one of the following: text, sound, stationary picture, moving picture (the moving picture is interpreted as video) (column 0045, line 3-9 and column 0079, lines 8-12).

(13) Regarding claim 55:

A system as claimed in claim 52, wherein the broadcast program-associated data comprises:

- information defining the broadcasting time of the program. (column 0049, lines 4-11).

(14) Regarding claim 56:

A system as claimed in claim 55, wherein:

- a user interface of the subscriber terminal (column 0017, lines 3-6) is configured to start presenting the program on the basis of the information defining the broadcasting time (column 0049, lines 4-15).

(15) Regarding claim 57:

A system as claimed in claim 55, wherein:

- the subscriber terminal comprises a memory, and the subscriber terminal is configured to store the program into the memory on the basis of the information defining the broadcasting time (column 0084, lines 26-34).

(16) Regarding claim 58:

A system as claimed in claim 52, wherein:

- the server is configured to maintain a list of subscriber terminals that receive the broadcast program-associated data (subscriber database is interpreted as a server

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to maintain a list of subscriber terminals that receive the broadcast program-associated data) (figure 3, 205, column 0052, lines 44-50).

(17) Regarding claim 64:

A system as claimed in claim 52, wherein:

- the program comprises a radio program (figure 1, 102, 102N);
- the broadcast program-associated data comprises data associated with a radio program (figure 11, 308);
- the broadcasting system comprises a radio broadcasting system (figure 1, 102),
- the program receiver comprises a radio receiver figure 11, 324),
- and the broadcasting system broadcasting path comprises a specific frequency defined for the radio broadcasting system (column 0052, line 10-11).

(18) Regarding claim 66:

A system as claimed in claim 52, wherein:

- the transmission of the broadcast program-associated data (data such as text, audio, video are interpreted to be program associated data) (column 0045, line 3-9 and column 0079, lines 8-12) is synchronized (0053, lines, 20-25) with the broadcasting of the program in such a manner that the base station (column 0014, lines 27-31) is configured to transmit the broadcast program-associated data in advance (the clock synchronization between the mobile unit and the network is interpreted to be the term "in advance") (column 0053, line 20-25) to the subscriber terminal,

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- and the subscriber terminal (mobile unit is interpreted as subscriber terminal) (column 004, lines 6-9) is configured to use the broadcast program-associated data transmitted in advance to the subscriber terminal after a permission to do so has been obtained (the clock synchronization between the mobile unit and the network is interpreted to be the term "in advance")(column 0053, line 20-25).

(19) Regarding claim 67:

A system for broadcasting a program, the system comprising:

- a broadcasting system for broadcasting a program over a broadcasting path of the broadcasting system (figure 1, column 0046, lines 1-6);
- a server (the database is interpreted a server) (column 0065, lines 1-6) for processing broadcast program-associated data, which the server is configured to process synchronization information that defines the synchronization of the transmission of the broadcast program-associated data with the broadcasting of the program (column 0053, line 20-32); and
- a cellular radio network configured to receive from the server the broadcast program-associated data and synchronization information and which cellular radio network comprises a base station configured to transmit at a specific frequency defined for the cellular radio network the broadcast program-associated data in such a manner that the transmission of the broadcast program-associated data is synchronized with the broadcasting of the program according to the synchronization information (column 0053, line 1-32).

(20) Regarding claim 68:

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A system as claimed in claim 52, wherein:

- the program comprises a radio program (figure 1, 102, 102N), the broadcast program-associated data comprises data associated with a radio program (figure 11, 308),
- the broadcasting system comprises a radio broadcasting system (figure 1, 102), and
- the broadcasting system broadcasting path comprises a specific frequency defined for the radio broadcasting system (column 0052, line 10-11).

(21) Regarding claim 69:

A system as claimed in claim 67, wherein:

- the transmission of the broadcast program-associated data (data such as text, audio, pictures, and video are interpreted to be program associated data) (column 0045, line 3-9 and column 0079, lines 8-12) is synchronized (0053, lines, 20-25) with the broadcasting of the program in such a manner that the base station (column 0014, lines 27-31) is configured to transmit the broadcast program-associated data in advance (the clock synchronization between the mobile unit and the network is interpreted to be the term "in advance")(column 0053, line 20-25) to the subscriber terminal (mobile unit is interpreted as subscriber terminal) (column 004, lines 6-9),
- and the server (column 0069, lines 39-44) is configured to give a permission for the subscriber terminal to use the broadcast program-associated data transmitted in advance to the subscriber terminal (the clock synchronization between the mobile unit and the network is interpreted to be the term "in advance")(column 0053, line 20-25).

(22) Regarding claim 70:

A subscriber terminal of a cellular radio network for receiving a program, the subscriber terminal (mobile unit is interpreted as subscriber terminal) (column 004, lines 6-9) comprising:

- a program receiver (figure 15, 324) for receiving a program from the broadcast path of a broadcasting system (figure 1, 102); and
- a cellular radio network transceiver (figure 15, 410) for receiving broadcast program-associated data at a specific frequency (carrier frequency is interpreted to be the specific frequency)(column 0011, line 33-36) defined for the cellular radio network (communication network is interpreted to be the cellular network) (figure 15, 406);
- wherein the reception of the broadcast program-associated data is synchronized with the reception of the program (0053, lines, 20-25) in such a manner that the cellular radio network transceiver (column 0084, lines 10-12) is configured to receive the broadcast program-associated data in advance (the clock synchronization between the mobile unit and the network is interpreted to be the term "in advance") (column 0053, line 20-25) and
- the cellular radio network transceiver (column 0084, lines 10-12) is further configured to receive a permission for using the broadcast program-associated data transmitted in advance to the subscriber terminal (the clock synchronization between the mobile unit and the network is interpreted to be the term "in advance") (column 0053, line 20-25).

(23) Regarding claim 71:

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A subscriber terminal as claimed in claim 70, wherein:

- the subscriber terminal (mobile unit is interpreted to be the subscriber terminal) (column 004, lines 6-9) also comprises a specific user application, with which the user easily manages the reception of the program and the broadcast program-associated data (the user application is interpreted to be a software which can be downloaded in the memory of the mobile unit. Most of the mobile unit has this functionality) (column 0084, lines 26-34).

(24) Regarding claim 72:

A subscriber terminal as claimed in claim 70, wherein:

- the user application is installed into the subscriber terminal (mobile unit is interpreted to be the subscriber terminal) (column 004, lines 6-9) at the factory or downloaded to the subscriber terminal later by the vendor of the subscriber terminal, the cellular radio network operator or the user of the subscriber terminal (the user application is interpreted to a software which can be downloaded in the memory of the mobile unit. Most of the mobile unit has this functionality) (column 0084, lines 26-34).

(25) Regarding claim 73:

A subscriber terminal as claimed in claim 70, wherein:

- the user application is personalized with the user profile of the user in such a manner that the type of the broadcast program-associated data that the subscriber terminal receives is specified in the user profile (user profile is interpreted to be an identification database which stores list of broadcasting programs and broadcasting data) (column 0075, line 1-13).

(26) Regarding claim 74:

A subscriber terminal as claimed in claim 70, wherein:

- the subscriber terminal (mobile unit is interpreted to be the subscriber terminal) (column 004, lines 6-9) is configured to download ready-made user profiles (user profile is interpreted as an identification database which stores list of broadcasting programs and broadcasting data) (column 0075, line 1-13) from the mobile server (figure 16, 378).

(27) Regarding claim 75:

A subscriber terminal as claimed in claim 70, wherein:

- for each user profile, a unique identifier is defined (subscriber identifier is interpreted to be a unique identifier) (column 0054, lines 11-14), by means of which it is possible to identify the user application in each subscriber terminal (mobile unit is interpreted to be the subscriber terminal) (column 004, lines 6-9).

(28) Regarding claim 76:

A subscriber terminal as claimed in claim 70, wherein:

- when starting, the user application (the user application is interpreted to a software which can be downloaded in the memory of the mobile unit. Most of the mobile unit has this functionality) (column 0084, lines 26-34) is configured to offer the user the option of selecting a station (column 0074, lines 31-34).

(29) Regarding claim 77:

A subscriber terminal (mobile unit is interpreted to be the subscriber terminal) (column 004, lines 6-9) as claimed in claim 76, wherein:

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- the user application is configured to find out the cell identifier implemented by the base station (column 0011, lines 26-29),
- to transmit the identifier to the mobile server (client information database is interpreted to be the server) (column 0011, lines 29-35), and
- to receive from the mobile server a list of stations received in the cell in question (column 0011, line 29-35).

(30) Regarding claim 78:

A subscriber terminal as claimed in claim 76, wherein:

- the user application is configured to receive from the mobile server a list of audible stations in the location according to the location information of the subscriber terminal (column 0011, line 29-35):

(31) Regarding claim 79:

A subscriber terminal as claimed in claim 76, wherein:

- the receiver (figure 15, 324) of the subscriber terminal (mobile unit is interpreted to be the subscriber terminal) (column 004, lines 6-9) is configured to scan through the frequency spectrum and to transmit the scanning results or the frequencies of the receivable stations (column 004, lines 29-32) to the mobile server, and
- to receive on the basis of the transmitted information a list of receivable stations defined by the mobile station (column 004, lines 31-41).

(32) Regarding claim 80:

A subscriber terminal as claimed in claim 76, wherein:

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- the user interface (figure 15, 364, column 0015, lines 3-6) of the subscriber terminal (mobile unit is interpreted to be the subscriber terminal) (column 004, lines 6-9) is configured to receive the name of the location entered by the user (figure 11, 324), and
- the user application is configured to transmit (figure 11, 394) (the transmitter transmit data containing broadcasting information such as name and location) the name in question to the mobile server (broadcaster identification database contains information regarding the broadcasters) (figure 11, 372), and
- to receive the station list of the location transmitted by the mobile Server.

(33) Regarding claim 81:

A subscriber terminal as claimed in claim 70, wherein:

- the program comprises a radio program, the broadcast program-associated data comprises data associated with a radio program (column 0045, lines 6-9), and the broadcasting system broadcasting path comprises a radio broadcasting system (figure 1).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 44, 45, 46, 47, 50, 59, 60, 61, 62, and 65 are rejected under 35 U.S.C. 103(a) as being unpatentable over Noreen et al. (US Patent Number 20020183059) in view of Tatsuji et al. (US Patent Number 2000151271).

(34) Regarding claim 44:

Noreen et al. discloses all of the subject matter as described above except for specifically teaching a method as claimed in claim 77, wherein the method also comprises: establishing from the subscriber terminal a return channel through the base station to the server.

However, Tatsuji et al., in the same field of endeavor, teaches that transmission and reception of the data is carried out after a channel is established between the server (figure 5, 5) and portable terminal (channel is interpreted to be return channel and portable terminal is interpreted as subscriber terminal) (column 0161, lines 1-4).

One of ordinary skill in the art would have clearly recognized that in order to establish a communication link between a mobile unit and a base station, the mobile unit sends a connection request with network via base station using access channel. The network responds to the mobile's request through the base station using an access grant channel. To establish a connection between the mobile unit and the network through the base station, it would have been obvious to one ordinary skill in the art at the time the invention was made to use the wireless communication connection request method and theory as taught by Tasuji to establish the link between the mobile terminal,

the server and broadcasting station. In doing so the, the mobile terminal would transmit and receive data to and from the broadcasting station.

(35) Regarding claim 45:

Noreen et al. further discloses A method as claimed in claim 44, wherein the method also comprises:

- order a given program for broadcasting at a specific frequency defined for the cellular radio network. (column 0013, lines 8-10) (carrier frequency is interpreted as specific frequency) (column 0049, lines 5-8).

Noreen et al. discloses all of the subject matter as described above except for specifically teaching using the return channel to order a given program.

However, Tatsuji et al., in the same field of endeavor, teaches that that transmission and reception of the data is carried out after a channel is established between the server (figure 5, 5) and portable terminal (channel is interpreted as a return channel and portable terminal is interpreted as subscriber terminal) (column 0161, lines 1-4).

One of ordinary skill in the art would have clearly recognized that in order to establish a communication link between a mobile unit and a base station, the mobile unit sends a connection request with network via base station using access channel. The network responds to the mobile's request through the base station using an access grant channel. To establish a connection between the mobile unit and the network through the base station, it would have been obvious to one ordinary skill in the art at the time the invention was made to use the wireless communication connection request

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method and theory as taught by Tasuji to establish the link between the mobile terminal, the server and broadcasting station. In doing so the, the mobile terminal would transmit and receive data to and from the broadcasting station. Also, by establishing a wireless communication channels, mobile terminal would be able to place purchase order using the mobile terminal.

(36) Regarding Claim 46:

Tatsuji et al. further discloses a method as claimed in claim 44, wherein the method also comprises:

- using the return channel (channel is interpreted as a return channel) (column 0161, lines 1-4) to transfer program-associated feedback information from the subscriber terminal to the broadcasting system (data is interpreted to be feedback information) (column 0059, line 6-8).

One of ordinary skill in the art would have clearly recognized that in order to send and receive any type of data whether it is feedback information or broadcasting data, a communication link between a mobile unit and broadcasting system need to be established via a communication channel such as access channel (RACH). Once the connection is established between the mobile and the network via access channel, the mobile unit uses traffic channel (TCH) to sends data or any other information to network. In order to send data or feedback information from mobile unit to the broadcasting system, it would have been obvious to one ordinary skill in the art at the time the invention was made to use the wireless communication connection request method and theory as taught by Tasuji to establish the link between the mobile terminal,

the server, and broadcasting station. In doing so the, the mobile terminal would send and receive data from and to the broadcasting station. Also, by establishing a wireless communication channels, mobile terminal would be able to place purchase order using the mobile terminal.

(37) Regarding claim 47:

Noreen et al. further discloses method of making a purchase associated with an advertisement presented in the program and/or broadcast program-associated data (column 004, lines 14-20).

Noreen et al. discloses all of the subject matter as described above except for specifically teaching using the return channel return channel.

However, Tatsuji et al., in the same field of endeavor, teaches that to use a return channel (channel is interpreted as a return channel) (column 0161, lines 1-4) to make a purchase associated with an advertisement presented in the program and/or broadcast program-associated data.

One of ordinary skill in the art would have clearly recognized that in order to send and receive any type of data whether it is feedback information or broadcasting data, a communication link between a mobile unit and broadcasting system need to be established via a communication channel such as access channel (RACH). Once the connection is established between the mobile and the network via access channel, the mobile unit uses traffic channel (TCH) to sends data or any other information to network. In order to send data or feedback information from mobile unit to the broadcasting system, it would have been obvious to one ordinary skill in the art at the

time the invention was made to use the wireless communication connection request method and theory as taught by Tasuji to establish the link between the mobile terminal, the server, and broadcasting station. In doing so the, the mobile terminal would send and receive data from and to the broadcasting station. Also, by establishing a wireless communication channels, mobile terminal would be able to place purchase order using the

(38) Regarding claim 50:

Noreen et al. further discloses a method for broadcast program-associated data for broadcasting in a digital radio at a specific data channel or as subsidiary transmissions to an FM sub-carrier (carrier frequency is interpreted as specific data channel) (figure 1, column 0047, lines 1-7 and column 0049, lines 6-9).

Noreen et al. discloses all of the subject matter as described above except for specifically teaching the method for multiplexing the radio program.

However Tatsuji et al. in the same field of endeavor, teaches the method for multiplexing the radio program for digital radio broadcasting (column 0029, lines 5-7).

One of ordinary skill in the art would have clearly recognized that in order to receive digital radio broadcasting intended for a mobile terminal, the transmitted signal should be multiplexed. In doing so the one channel of the digital radio broadcast is separated into several segments. Of those segments some of them are allocated to the digital radio broadcasting and the remainder of those segments are allocated to the mobile units. To receive digital radio broadcasting into a mobile unit, it would have been obvious to one ordinary skill in the art at the time the invention was made to use the

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multiplexing technique on the transmitted signal as taught by Tasuji and forward it to the mobile units via mobile communication network. Additionally, multiplexing the transmission of the digital broadcasting via mobile communication provides convenient means to receive the digital radio broadcasting signals intended for a mobile units.

(39) Regarding claim 59:

A system as claimed in claim 52, wherein: the cellular radio network transceiver of the subscriber terminal (figure 15, 410) and the base station (figure 1, 108) (the ground station is interpreted to be the base station).

Noreen et al. discloses all of the subject matter as described above except for specifically teaching to establish a return channel through the base station to the server, and the base station is configured to receive the return channel.

However, Tatsuji et al., in the same field of endeavor, teaches that transmission and reception of the data is carried out after a channel is established between the server (figure 5,5) and portable terminal (channel is interpreted as a return channel and portable terminal is interpreted as subscriber terminal) (column 0161, lines 1-4).

One of ordinary skill in the art would have clearly recognized that in order to establish a communication link between a mobile unit and a base station, the mobile unit sends a connection request to network via base station using access channel. The network responds to the mobile's request through the base station using an access grant channel. To establish a connection between the mobile unit and the network through the base station, it would have been obvious to one ordinary skill in the art at the time the invention was made to use the wireless communication connection request

method and theory as taught by Tasuji to establish the link between the mobile terminal, the server and broadcasting station. In doing so the, the mobile terminal would transmit and receive data from and to the broadcasting station.

(40) Regarding claim 60:

Noreen et al. further discloses a system as claimed in claim 59, wherein

- the subscriber terminal is configured to order a given program for broadcasting (column 0013, lines 8-10) at a specific frequency defined for the cellular radio network(carrier frequency is interpreted as specific frequency) (column 0049, lines 5-8).

Noreen et al. discloses all of the subject matter as described above except for specifically teaching using the return channel to order a given program and the server (figure 5, 5) is configured to receive the program order.

However, Tatsuji et al., in the same field of endeavor, teaches that that transmission and reception of the data is carried out after a channel is established between the server and portable terminal (channel is interpreted as a return channel and portable terminal is interpreted as subscriber terminal) (column 0161, lines 1-4).

One of ordinary skill in the art would have clearly recognized that in order to establish a communication link between a mobile unit and a base station, the mobile unit sends a connection request with network via base station using access channel. The network responds to the mobile's request through the base station using an access grant channel. To establish a connection between the mobile unit and the network through the base station, it would have been obvious to one ordinary skill in the art at

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the time the invention was made to use the wireless communication connection request method and theory as taught by Tasuji to establish the link between the mobile terminal, the server and broadcasting station. In doing so the, the mobile terminal would transmit and receive data from and to the broadcasting station. The mobile server is used to store and convert the broadcasting data in a format that can be reproduced by the mobile terminals. Also, by establishing the wireless communication channel, mobile terminal would be able to place purchase order using the mobile terminal.

(41) Regarding claim 61:

Tatsuji et al. further discloses a system as claimed in claim 59, wherein

- The subscriber terminal is configured to use a return channel (channel is interpreted as a return channel) (column 0161, lines 1-4) to transfer program-associated feedback information from the subscriber terminal to the broadcasting system and the broadcasting system is configured to receive the program-associated feedback information from the subscriber terminal (data is interpreted as feedback information) (column 0059, line 6-8).

One of ordinary skill in the art would have clearly recognized that in order to send and receive any type of data whether it is feedback information or broadcasting data, a communication link between a mobile unit and broadcasting system need to be established via a wireless communication channel such as access channel (RACH). Once the connection is established between the mobile unit and the network via access channel, the mobile uses traffic channel (TCH) to sends data or any other information to network. In order to send data or feedback information from mobile unit to the

broadcasting system, it would have been obvious to one ordinary skill in the art at the time the invention was made to use the wireless communication connection request method and theory as taught by Tasuji to establish the link between the mobile terminal, the server, and broadcasting station. In doing so the, the mobile terminal would transmit and receive data from and to the broadcasting station. The mobile server is used to store and convert the broadcasting data in a format that can be reproduced by the mobile terminals. Also, by establishing the wireless communication channel, mobile terminal would be able to place purchase order using the mobile terminal.

(42) Regarding claim 62:

Noreen et al. further discloses a system as claimed in claim 59, wherein:

- The subscriber terminal is configured to use a return channel to make a purchase associated with an advertisement presented in the program and/or broadcast program-associated data (column 004, lines 14-20).

Noreen et al. discloses all of the subject matter as described above except for specifically teaching using the return channel return channel, and the server is configured to receive the purchase information from the subscriber terminal.

However, Tatsuji et al., in the same field of endeavor, teaches that to use a return channel (channel is interpreted as a return channel) (column 0161, lines 1-4) and the server is configured to receive the purchase information from the subscriber terminal (figure 2).

One of ordinary skill in the art would have clearly recognized that in order to send and receive any type of data or to make any transaction such as placing a purchase

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order, a communication link between a mobile unit and broadcasting system need to be established via a wireless communication channel such as access channel (RACH).

Once the connection is established between the mobile and the network via access channel, the mobile uses traffic channel (TCH) to sends data or any other information to network. In order to send a purchase order from mobile unit to the broadcasting system, it would have been obvious to one ordinary skill in the art at the time the invention was made to use the wireless communication connection request method and theory as taught by Tasuji to establish the link between the mobile terminal, the server, and broadcasting station. In doing so the, the mobile terminal would transmit and receive data from and to the broadcasting station. Moreover, the mobile server is used to store and convert the broadcasting data in a format that can be reproduced by the mobile terminals. In addition, the server contains all the billing and user information. Also, by establishing the wireless communication channel, mobile would be able to place purchase order using the mobile terminal.

(43) Regarding claim 65:

Noreen et al. further discloses a system as claimed in claim 52, wherein:

- the server is configured to multiplex the radio program and broadcast program-associated data for broadcasting in a digital radio at a specific data channel or as subsidiary transmissions to an FM subcarrier (carrier frequency is interpreted as specific data channel) (figure 1, column 0047, lines 1-7 and column 0049, lines 6-9).

Noreen et al. discloses all of the subject matter as described above except for specifically teaching to multiplex the radio program.

Tatsuji et al. in the same field of endeavor, teaches that the server is configured to multiplex the radio program and broadcast program-associated data for broadcasting in a digital radio broadcasting (column 0029, lines 5-7).

One of ordinary skill in the art would have clearly recognized that in order to receive digital radio broadcasting intended for a mobile terminal, the transmitted signal should be multiplexed. In doing so, one channel of the digital radio broadcast is separated into several segments. Of those segments, some of them are allocated to the digital radio broadcasting, and the remainder of those segments is allocated to the mobile units. To receive digital radio broadcasting in a mobile unit, it would have been obvious to one ordinary skill in the art at the time the invention was made to multiplex the transmitted signal as taught by Tatsuji and forward it to the mobile units via mobile communication network. Additionally, transmission of the multiplexed digital broadcasting via mobile communication network provides convenient means to receive the digital radio broadcasting signals intended for a mobile units.

10. Claims 48 and 63 are rejected under 35 U.S.C. 103(a) as being unpatentable over Noreen et al. and Tatsuji et al. as applied to claims 44 and 59 above respectively, and further in view of Newell et al. (US Patent Number 2002/0142764).

(44) Regarding claim 48:

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Tatsuji et al. further discloses a method as claimed in claim 44, wherein the method also comprises:

- using the return channel to transfer to the server data related to a game to be played in the subscriber terminal. (channel is interpreted as a return channel) (column 0161, lines 1-4).

Tatsuji et al. discloses all of the subject matter as described above except for specifically teaching a game to be played in the subscriber terminal.

However, Newell et al. in the same field of endeavor, teaches to transfer to the server (column 0023, lines 9-11) data related to a game to be played in the subscriber terminal (column 0030, lines 1-5).

One of ordinary skill in the art would have clearly recognized that in order to send and receive any type of data such as entertainment data or to make any transaction such as placing a purchase order, a communication link between a mobile unit and broadcasting system need to be established via a communication channel such as access channel (RACH). Once the connection is established between the mobile and the network via access channel, the mobile uses traffic channel (TCH) to send data or any information to network. In order to send data or feedback information from mobile unit to the broadcasting system, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the wireless communication connection request method and theory as taught by Tatsuji to establish the link between the mobile terminal, the server, and broadcasting station. In doing so the, the mobile terminal would transmit and receive data from and to the broadcasting station. Also, by

establishing the wireless communication channels, the subscriber of the mobile terminal would be able to place purchase order and receive entertainment data such as games into the mobile terminals.

(45) Regarding claim 63:

Tatsuji et al. further discloses a system as claimed in claim 59, wherein

- the subscriber terminal is configured to transfer to the server by using the return channel data related to a game to be played in the subscriber terminal, and the server is configured to receive the data related to the game from the subscriber terminal. (channel is interpreted as a return channel) (column 0161, lines 1-4).

Tatsuji et al. discloses all of the subject matter as described above except for specifically teaching the subscriber terminal is configured to transfer to the server data related to a game to be played in the subscriber terminal, and the server is configured to receive the data related to the game from the subscriber terminal.

However, Newell et al. in the same field of endeavor teaches subscriber terminal is configured to transfer to the server (column 0023, lines 9-11) data related to a game to be played in the subscriber terminal (column 0030, lines 1-5).

One of ordinary skill in the art would have clearly recognized that in order to send and receive any type of data such as entertainment data or to make any transaction such as placing a purchase order, a communication link between a mobile unit and broadcasting system need to be established via a communication channel such as access channel (RACH). Once the connection is established between the mobile unit and the network via access channel, the mobile uses traffic channel (TCH) to send and

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receive data or any other information to/from network. In order to send and receive data to/from mobile unit to the broadcasting system, it would have been obvious to one ordinary skill in the art at the time the invention was made to use the wireless communication connection request method and theory as taught by Tasuji to establish the link between the mobile terminal, the server, and broadcasting station. In doing so the, the mobile terminal would send and receive data from and to the broadcasting station. Also, by establishing the wireless communication channels, the subscriber of the mobile terminal would be able to place purchase order and receive entertainment data such as games into the mobile terminals.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Noreen et al. (US Pub. Number 2002/0183059) discloses a broadcasting system and a mobile terminal for receiving a broadcasting program via wireless network.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kabir A. Timory whose telephone number is (571) 270-1674. The examiner can normally be reached on Mon - Thu 6:30AM - 4:00PM & Fri 6:30AM - 3:00PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shuwang Liu can be reached on (571) 272-3036. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Kabir Timory
February 15, 2007



SHUWANG LIU
SUPERVISORY PATENT EXAMINER